

1/14/05
from

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

05 11240 GAO

HYDRO-PHOTON, INC.
a Maine Corporation

Plaintiff,

v.

Civil Action No.

MERIDIAN DESIGN, INC., a California
Corporation

Defendant.

MAGISTRATE JUDGE *Dein*

COMPLAINT

RECEIPT #
AMOUNT \$ *250*
SUMMONS ISSUED *yes*
LOCAL RULE 4.1
WAIVER FORM
MOF ISSUED
BY CPT. CLK. *5:00 P.M.*
DATE *6/13/05*

Plaintiff, Hydro-Photon, Inc. ("Hydro-Photon"), as and for its Complaint against
Defendant, Meridian Design, Inc. ("Meridian"), complains and alleges as follows:

JURISDICTION AND VENUE

1. This action arises under the patent laws of the United States, 35 U.S.C. § 271 et seq. This Court has jurisdiction under 28 U.S.C. §§ 1331 and 1338(a).
2. Venue properly resides in this District pursuant to 28 U.S.C. §§ 1391(b), (c), and 28 U.S.C. § 1400(b).

PARTIES

3. Plaintiff, Hydro-Photon, is a Maine corporation having a principal place of business at 262 Ellsworth Road, Blue Hill, Maine 04614. Hydro-Photon manufactures and markets Steri-Pen™, a hand-held ultraviolet water purifier, in this District, and elsewhere in the United States and several foreign countries.

4. Upon information and belief, Meridian is a California corporation having a principal place of business at 2033 San Elijo Avenue, Cardiff, California 92007.

5. On information and belief, Meridian has made, sold, and/or offered for sale, throughout the United States including this District, a portable ultraviolet water purifier called the AquaStar™ Ultraviolet Portable Water Purifier (the “AquaStar™ product”).

6. Meridian has also constructed and currently operates a web site accessible on the Internet, with the web address <http://uvaquastar.com>. A print of the home page of the Meridian site web is attached as Exhibit A.

7. Meridian’s web site is interactive in that Internet users who access the website from their remote computers can purchase Meridian’s AquaStar™ product directly from Meridian over the Internet. On information and belief, Meridian regularly enters into contracts over the Internet with residents of foreign jurisdictions, including residents of the Commonwealth of Massachusetts, for the purchase of its AquaStar™ product.

COUNT I

Patent Infringement

8. The allegations of paragraphs 1-7 above are incorporated herein by reference.

9. This claim is made under the provisions of the patent laws of the United States, 35 U.S.C. §§ 271 et seq.

10. Hydro-Photon is the owner of United States Patent No. 6,110,424, entitled “Hand-Held Ultraviolet Water Purification System,” which was duly and legally issued by the U.S. Patent and Trademark Office on August 29, 2000 (hereinafter “the ’424 patent”). A copy of the ’424 patent is attached hereto as Exhibit B and is incorporated herein by reference.

11. Meridian has been and is now directly infringing the ’424 patent, and/or indirectly infringing by inducing and/or contributing to the infringement of the ’424 patent, in this District and elsewhere, by making, using, offering for sale, and/or selling products, including, but not

limited to, its AquaStar™ product, which is covered by one or more claims of the '424 patent, including at least claim 7 thereof.

12. At all relevant times, Hydro-Photon has complied with the requirements of 35 U.S.C. § 287 with respect to marking its Steri-Pen™ product with the number of the '424 patent.

13. On information and belief, Meridian has had actual notice and knowledge of the '424 patent, but despite such notice and knowledge, has deliberately committed, and continues to commit, the aforesaid acts of direct, contributory and/or induced infringement of the '424 patent. Accordingly, Meridian's infringement has been, and continues to be, willful, deliberate, and in conscious disregard for the rights of Hydro-Photon under the '424 patent.

14. Hydro-Photon has been damaged by Meridian's infringement of the '424 patent and will continue to be damaged in the future unless Meridian is permanently enjoined.

WHEREFORE, Hydro-Photon prays that the Court:

A. Enter judgment that Meridian has infringed United States Patent No. 6,110,254 directly, and indirectly by inducing and/or contributing to the infringement of the '424 patent;

B. Enter judgment that Meridian's acts of patent infringement have been willful;

C. Temporarily, preliminarily and permanently enjoin Meridian, its parents, subsidiaries, affiliates, divisions, officers, agents, servants, employees, directors, partners, representatives, and all parties in active concert and/or participation with it, from engaging in the aforesaid and any other unlawful acts of infringement of the '424 patent;

D. Order Meridian to account for and pay to Hydro-Photon all damages caused to Hydro-Photon by Meridian's unlawful acts of infringement of the '424 patent;

E. Award Hydro-Photon increased damages and attorneys fees pursuant to 35 U.S.C. §§ 284 and 285;

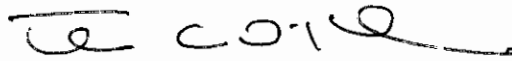
- F. Award Hydro-Photon its interest and costs incurred in this action; and
- G. Grant Hydro-Photon such other and further relief as it may deem just, proper and equitable.

JURY DEMAND

Hydro-Photon demands a trial by jury on all issues triable of right by a jury which are raised for determination by this Complaint, or which may be raised by any pleading or amended pleading, including any counterclaim to be filed herein.

Respectfully submitted,

Dated: June 14, 2005



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COUNSEL FOR PLAINTIFF, HYDRO-PHOTON,
INC.

Monday 13 June, 2005

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June 1, 2005: AquaStar™ was proud to be a part of the [Stanford Social E-challenge](#) competition, taking second place for a design which adapts our unit for use in the 3rd world. We expect to begin marketing a low-cost UV system with a joint venture partner in India later this year.

January, 2005: Meridian Design, Inc., showcased the AquaStar™ Portable Ultraviolet (UV) Water Purifier at [Outdoor Retailer Winter Market 2005](#).



Lightweight, compact, affordable, rugged and simple to operate, the AquaStar™ Portable Ultraviolet (UV) Water Purifier is designed to meet the needs of virtually anyone who needs clean, safe water in any environment. **The AquaStar™ Ultraviolet (UV-C) Portable Water Purifier is now available on-line for our international buyers, and in select venues in North America.**

Why The AquaStar™ Ultraviolet (UV-C) Water Purifier is Best

The AquaStar™ Ultraviolet (UV-C) Water Purifier directly addresses the five major challenges of making a portable UV-C germicidal water system: (1) Size, (2) Weight, (3) Cost, (4) Durability, and (5) Complexity.

(1) Our UV-C purifier takes up virtually no additional room in your gear or survival kit since it fits inside the same type of standard 1L wide-mouth water bottle that most people pack. How do we do it? We replace the cap on the bottle with a low-profile weather-sealed electronics package. And we also supply a quality polycarbonate bottle with our purifier, just in case you don't have one already; but you can certainly use your own favorite bottle if you prefer.

(2) AquaStar™ adds only 3 ounces of weight (about 50 grams) -- including batteries -- to the weight of the water bottle it is mounted on. Both HDPE and polycarbonate Nalgene®-style wide-mouth bottles are already very light, so for the ultralight hikers, AquaStar™ is definitely the way to go. In addition, the AquaStar™ is designed to use small, lightweight CR-123 batteries, the same type used in pocket-sized point-and-shoot cameras.

(3) By making the AquaStar™ out of commonly available components, the cost is kept low. And, by keeping the parts count to a minimum, and avoiding wasteful display packaging, we drive the cost down even lower. But low cost doesn't mean low quality! Each component is still the best in its class. From the odor-free polycarbonate bottle to the Philips Sterilamp® UV-C tube -- rated at 8,000 hours of use -- AquaStar™ is designed for years of trouble-free operation.

(4) The AquaStar™ is designed for the sports enthusiast. We know what kinds of crazy environments you seem to end up in because we've been there! Jungles, deserts, glaciers, flood zones, hurricanes, caving and volcano watching -- whatever your scenery, you can count on AquaStar™. **The resilient quartz UV-C tube is shock-mounted at both ends in the bottle. The electronics head is completely sealed against water, sand, and gases. There are no moving parts to snap off or bend.** Of course, the AquaStar™ Ultraviolet (UV-C) Water Purifier is also right at home in your earthquake or disaster preparedness kit, or in a roadside emergency kit in the trunk of your car.

(5) Purifying water is a serious business. You want to trust the product your health depends on. The intelligent brain of the AquaStar™ Ultraviolet (UV-C) Water Purifier is a programmable microcontroller that keeps track of the sterilization process for you. AquaStar™ meters the correct dosage per liter of 254 nm UVC radiation for safe drinking water. **All you have to do is push one button and wait a minute for the green light.** That's it. Simple. The way things should be.

We think we've designed a terrific product that will meet the needs of almost anyone. We hope you agree!

AquaStar™ -- Lighting a path to safe water.

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US006110424A

United States Patent {19}{11} **Patent Number:** **6,110,424****Maiden et al.**{45} **Date of Patent:** ***Aug. 29, 2000**{54} **HAND-HELD ULTRAVIOLET WATER PURIFICATION SYSTEM**{75} Inventors: **Miles Maiden; Robert Watkins**, both of Blue Hill, Me.{73} Assignee: **Hydro-Photon, Inc.**, Blue Hill, Me.

{*} Notice: This patent is subject to a terminal disclaimer.

{21} Appl. No.: **09/256,054**{22} Filed: **Feb. 23, 1999****Related U.S. Application Data**

{63} Continuation of application No. 08/790,750, Jan. 1, 1997, Pat. No. 5,900,212.

{51} Int. Cl.⁷ **C02F 1/32**{52} U.S. Cl. **422/24; 250/432 R; 250/504 H; 210/748**{58} Field of Search **422/24; 250/432 R; 250/433, 455.11, 504 H; 210/748, 241**{56} **References Cited****U.S. PATENT DOCUMENTS**

1,896,365 2/1933 Harding 422/24 X

1,965,947	7/1934	Prouty	.....	422/24 X
3,843,521	10/1974	Zeff	.....	422/24 X
4,276,256	6/1981	Karamian	.....	422/24
4,762,613	8/1988	Snowball	.....	422/24 X
5,173,269	12/1992	Mon et al.	.....	422/186.3
5,900,212	5/1999	Maiden et al.	.....	422/24

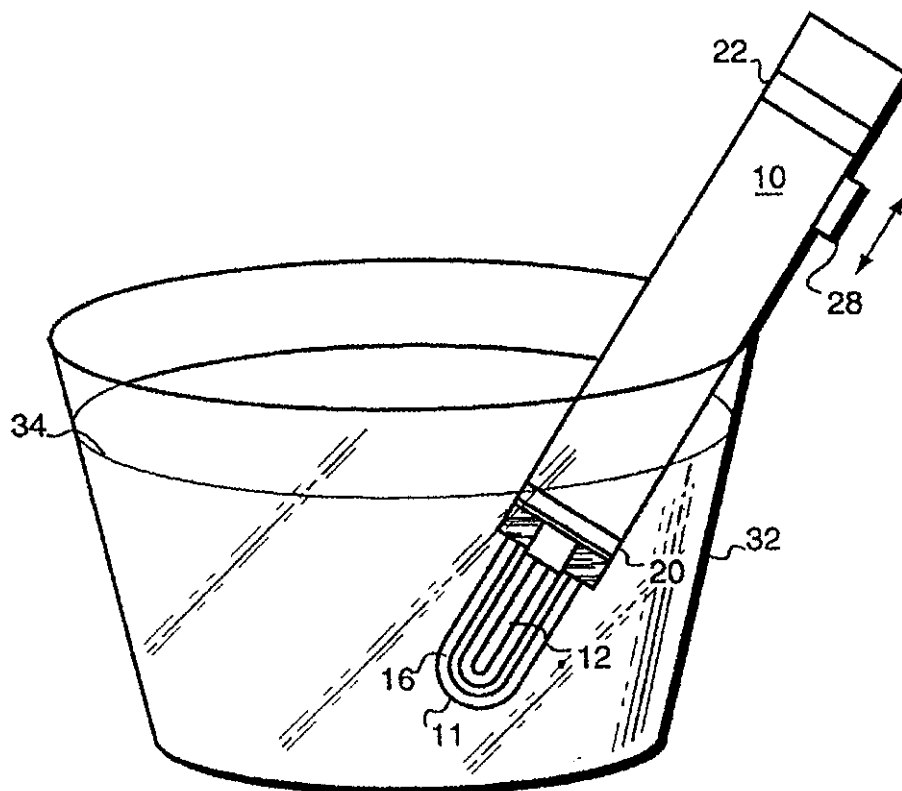
FOREIGN PATENT DOCUMENTS

8-117742	5/1996	Japan	.
2301272	11/1996	United Kingdom	.

Primary Examiner—Elizabeth McKane
Attorney, Agent, or Firm—Cesari and McKenna, LLP

{57} **ABSTRACT**

A hand-held water purification system includes a pen-light sized ultraviolet lamp that is enclosed in a quartz cover and is powered by a battery and associated ballast circuitry. The battery and ballast circuitry are connected to the lamp by switches that are under the control of a liquid-level sensor. The sensor connects the battery, the ballast circuitry and the lamp once the sensor determines that the ultraviolet lamp is fully immersed in the water. If the container that holds the water is relatively large, the lamp and quartz cover end of the system are used to stir the water, to ensure that all of the water comes sufficiently close to the ultraviolet lamp.

27 Claims, 2 Drawing Sheets

U.S. Patent

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Sheet 1 of 2

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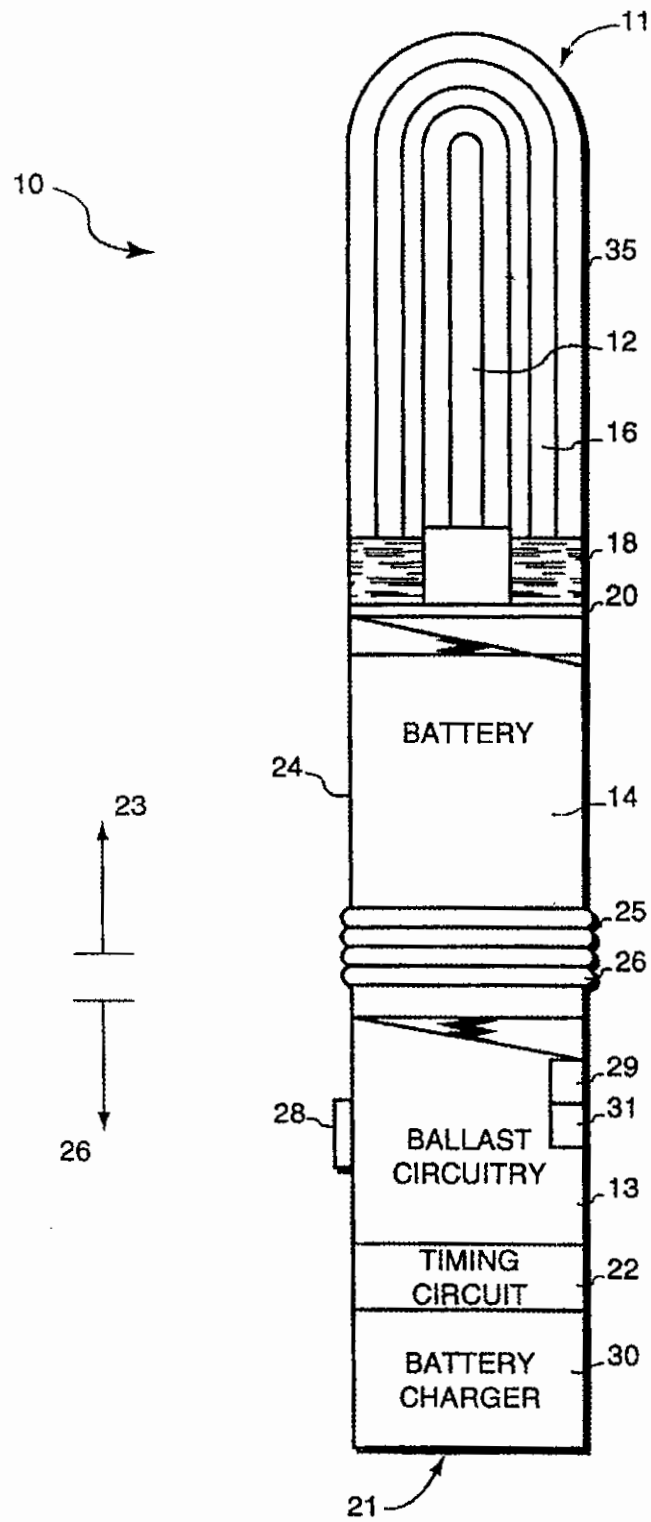


FIG. 1

U.S. Patent

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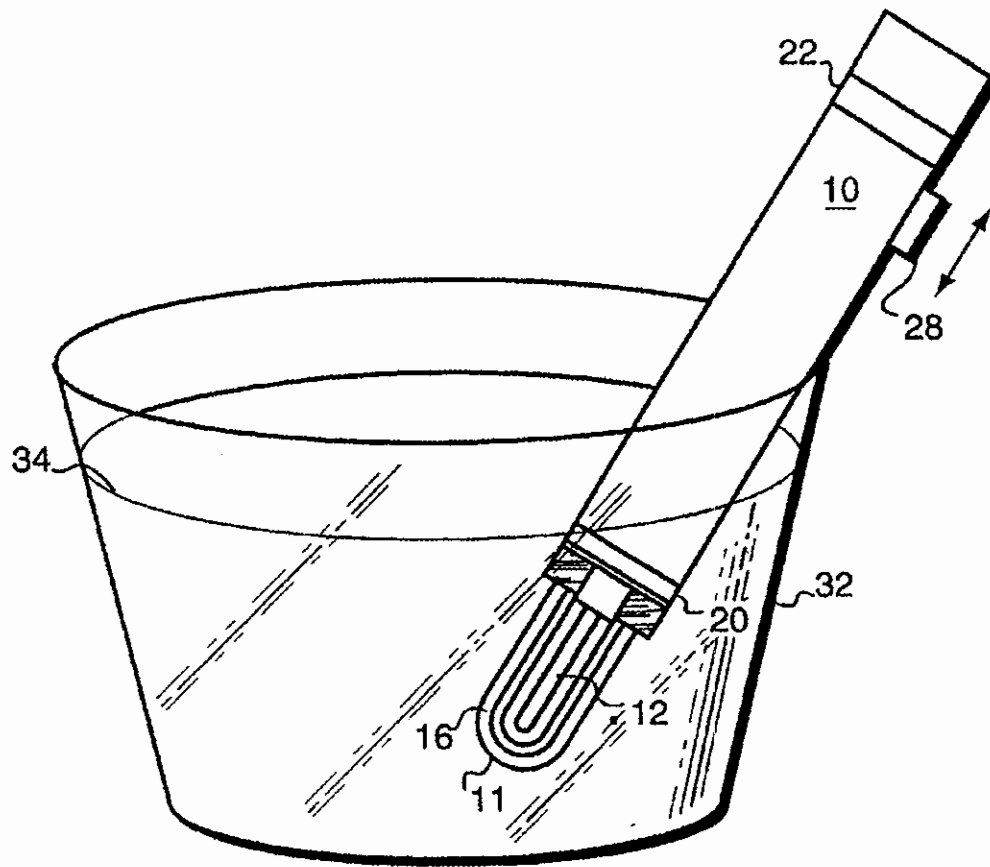


FIG. 2

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HAND-HELD ULTRAVIOLET WATER PURIFICATION SYSTEM

This application is a continuation of Ser. No. 08/790,750, filed Jan. 1, 1997, now U.S. Pat. No. 5,900,212.

FIELD OF THE INVENTION

The invention relates to systems for disinfecting water using ultraviolet light.

BACKGROUND OF THE INVENTION

It is known that ultraviolet ("UV") light in the germicidal range, of approximately 254 nm, can be used to disinfect water, that is, to rid water of bacteria, viruses, algae and so forth. Known prior water purification systems that use UV light are large, installed systems that each include a flow-through subsystem, which causes water to travel past an elongated UV light source that is suspended therein. A quartz sleeve surrounds the UV light source, to protect it and its electrical connections from the water while allowing the UV radiation to pass to the water. Such systems are currently used to purify water for use in, for example, hospitals or schools.

The flow-through subsystems each essentially include a flow-through chamber, i.e., a pipe. As water flows through the pipe, it travels past the quartz sleeve, and thus, the UV light source, and is exposed to UV radiation. The UV radiation kills the bacteria, viruses and so forth that are present in the water. Waste byproducts may build up on the quartz sleeve, and accordingly, the systems include wiper mechanisms that periodically clean the quartz sleeves. These systems typically include a mechanism, such as a viewing port and/or a sensor, for determining the output level of the lamp. A user can visually check the lamp through the view port to ensure both that the lamp is turned on and that the quartz sleeve is sufficiently clean to pass the level of UV radiation required to disinfect the water. The sensor measures the UV radiation for the same purpose.

These flow-through systems work well for disinfecting relatively large quantities of water. They are not, however, suitable for disinfecting small quantities of water.

Today campers, hikers, travelers and the like encounter bacteria and virus infected water in streams, lakes and rivers, and in some countries even in the local plumbing. These hikers, campers and travelers must thus either carry bottled water with them or use portable filtering systems and/or chlorine, hydrogen peroxide or iodine tablets, to disinfect the water. The filtering systems are generally bulky, and thus, inconvenient to carry. Further, while they may remove bacteria and algae from the water, they do not remove viruses, which are typically too small to be caught in the filters. The chemical tablets are certainly portable but they are relatively expensive. Further, the tablets change the taste and smell of the water and add undesirable chemical byproducts to the water. Indeed, the tablet manufacturers generally warn against continuous use of the tablets, for health reasons.

SUMMARY OF THE INVENTION

The invention is a portable, hand-held water purifier that uses UV light to disinfect small quantities, or batches, of water. The water purifier, which is approximately the size and shape of a pen light, has extending from one end a small UV lamp with a quartz cover. The cover, and thus, the lamp, are dipped into a container of water and the lamp is then

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turned on, to rid the water of infectious agents. As necessary, the user may use the lamp end of the system to agitate the water, to ensure that all of the water passes sufficiently close to the lamp.

The system, which is battery-operated, further includes a liquid-level sensor at the base of the UV lamp. The sensor prevents the lamp from turning on until the lamp is fully immersed in the water. The container and the water act to shield the UV radiation, such that very little is emitted from the container. This prevents potentially harmful UV radiation from reaching the user and, in particular, the user's eyes.

BRIEF DESCRIPTION OF THE DRAWINGS

The above and further advantages of the invention may be better understood by referring to the following description in conjunction with is the accompanying drawings, in which:

FIG. 1 is a cut away side view of a portable water purification system constructed in accordance with the invention; and

FIG. 2 illustrates the portable water purification system of FIG. 1 in use.

DETAILED DESCRIPTION OF ILLUSTRATIVE EMBODIMENTS

FIG. 1 illustrates a portable, hand-held water purification system 10 for disinfecting water in relatively small batches. The system includes, extending from a first end 11, a pen-light sized quartz UV lamp 12 that emits light in the germicidal range. In the exemplary system, the lamp 12 emits light at 254 nm. The lamp is powered through ballast circuitry 13 by a battery 14, which in the exemplary system is a size AA, 3.4 volt rechargeable lithium battery. A quartz cover 16 surrounds the UV lamp 12 on three sides. The quartz cover 16 fits into a holder 18 that also acts as a shock absorber for the lamp 12. The holder 18 thus compresses and bends, as appropriate, should the cover 16, and thus, the lamp 12, bump an edge or side of a container 32 (FIG. 2) into which they are placed. In the exemplary system the holder 18 is made of silicon and forms a watertight seal with the cover 16, to prevent water from reaching the lamp and the associated circuitry. A removable protective cover 35 protects the lamp and quartz cover when the device is not in use.

A liquid-level sensor 20, which is connected to switches (not shown) between the lamp 12, and the ballast circuitry 13 and battery 14, prevents the UV lamp from turning on until it is fully immersed in water. The UV radiation from the lamp is then absorbed and/or reflected by the water and the container such that very little of the UV radiation escapes from the container. The user, who is holding the other end 21 of the system, is thus protected from harmful levels of the UV radiation, which might otherwise adversely affect his or her eyes.

The sensor 20 may, for example, be a capacitive-type sensor that senses the difference in capacitance of the water and the surrounding air. When the sensor determines that it is in water, which necessarily means that the lamp is immersed in the water, the sensor closes the switches and allows the lamp to be turned on.

The water purifier 10 may also include a timing circuit 22 connected between the sensor and the lamp and associated circuitry. The timing circuit turns the lamp off a predetermined time, for example, 15 seconds, after the sensor 20 turns the lamp on.

The battery 14 and related circuitry are encased in a water-resistant tube 24. In the exemplary embodiment, the

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tube 24 is constructed of stainless steel. The entire water purifier is approximately six and three-quarters inches long and five-eighths of an inch in diameter, and fits comfortably in one hand. The tube 24 includes two parts, namely, a top 23 and a bottom 26, that screw together at a joint 25, so that the battery 14 can be replaced, as necessary. A silicon O-ring 26 makes the joint 25 water-tight.

The user controls the system with an on-off switch 28. As discussed above, the lighting of the lamp 12 is ultimately controlled by the liquid-level sensor 20, such that the lamp lights only when both the on-off switch 28 is in the on position and the lamp is fully immersed in water.

The water purifier 10 may also include a battery charger 30, which in the exemplary system is a conventional inductive-type charging circuit. Further, the purifier may include a power-on LED 29 and a low-battery LED 31, which indicate to a user, respectively, that the UV lamp is lit and that the battery needs replacing or recharging.

Referring now to FIG. 2, a user places the lamp end 11 of the water purifier 10 in water 34 that is, in the example, contained in a drinking glass 32. The user turns the system 10 on by moving the on-off switch 28 to the appropriate position. When the liquid-level sensor 20 determines that the lamp is fully immersed in the water, the sensor closes the switches (not shown) that separate the ballast circuitry 13 and the battery 14 (FIG. 1) from the lamp 12, and the lamp then turns on. The sensor 20 also starts the timing circuit 22 that keeps the lamp lit for a predetermined time.

The user may use the lamp end 11 of the system 10 to stir the water 34, to ensure that all of the water comes sufficiently close to the source of the UV radiation. If the container is small, however, the user need not stir the water.

After use, the user may wipe or wash the quartz sleeve 16, to clear away any waste byproducts that may have adhered to the sleeve and may adversely affect the output level of the device. Accordingly, the hand held purifier need not include a complex wiping mechanism and associated radiation-level sensor, as is required in the prior flow-through systems.

The hand-held UV water purification system 10 is thus a fully portable system that disinfects relatively small quantities, or batches, of water, such as the water contained in a drinking glass. The water purifier 10 is small and light weight so that it is easily and conveniently used when traveling, hiking, camping and so forth. This is in contrast to known flow-through UV water purification systems that are designed to disinfect large quantities of water for schools, hospitals and so forth. Such flow-through systems are installed such that water is piped past an elongated UV light source that is permanently suspended in the piping. These flow-through systems do not work with the small quantities of water with which the hand-held portable system is expected to be used, and are not conveniently portable.

The foregoing description has been limited to a specific embodiment of this invention. It will be apparent, however, that variations and modifications may be made to the invention, with the attainment of some or all of its advantages. Therefore, it is the object of the appended claims to cover all such variations and modifications as come within the true spirit and scope of the invention.

What is claimed is:

1. A method of purifying a batch of unsterilized water that is held in a container, the method including the steps of:
 - A. immersing an ultraviolet light source and associated ultraviolet transmissive cover that extend from a first end of the system in the batch of unsterilized water;
 - B. sensing that the light source is immersed fully in the unsterilized water;

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- C. turning the light source on to emit ultraviolet radiation in the batch of unsterilized water in the container, the radiation purifying the water.

2. The method of claim 1 further including the step of agitating the water by stirring the water with the first end of the system.

3. The method of claim 1 further including the step of turning the light source off a predetermined time after the light source is turned on.

4. A method of purifying water that is held in a container, the method including the steps of:

- A. immersing an ultraviolet light source and an associated ultraviolet transmissive cover that form one end of a water purification system in the water to be purified;

- B. turning the light source on to emit ultraviolet radiation in the water; and

- C. agitating the water by stirring the water with the light source and cover end of the system, the radiation from the light source purifying the water.

5. The method of claim 4 further including the step of sensing that the light source is immersed fully in the water before turning on the light source.

6. The method of claim 4 further including the step of turning the light source off a predetermined time after the light source is turned on.

7. A hand-held system for purifying unsterilized water, the system including:

- A. a drinking container having at one end an opening through which water both enters and exits the container and a second closed end for holding the water in the container;

- B. a case with an outwardly extending ultraviolet light source, the light source for submerging in the unsterilized water that is held in the drinking container and providing ultraviolet emissions that purify the unsterilized water;

- C. control means for turning the light source on and off, the control means being contained in the case.

8. The system of claim 7 further including a liquid-level sensor that prevents the light source from turning on until the light source is immersed in water.

9. The system of claim 8 further including a timing circuit that turns the light source off a predetermined time after the sensor allows the light source to turn on.

10. The system of claim 8 wherein the means for turning on the light source includes a battery.

11. The system of claim 10 wherein the battery is rechargeable and the system further includes a battery charger.

12. A method of purifying water that is held in a container, the method including the steps of:

- A. immersing an ultraviolet light source and an associated ultraviolet transmissive cover that form one end of a water purification system in the water to be purified;

- B. turning the light source on to emit ultraviolet radiation in the water to purify the water; and

- C. agitating the water to expose all of the water in the container to the ultraviolet radiation.

13. The method of claim 12 further including the step of sensing that the light source is immersed fully in the water before turning on the light source.

14. The method of claim 12 further including the step of turning the light source off a predetermined time after the light source is turned on.

15. The method of claim 12 wherein the step of agitating the water includes agitating the water with the immersed ultraviolet light source.

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16. A hand-held water purification system for purifying unsterilized water in batches, the system including:

- A. an ultraviolet light source;
- B. an ultraviolet transmissive cover that fits over the light source;
- C. power means for supplying power to the light source; and
- D. a case that contains the power means and connects to the ultraviolet transmissive cover to form a water-tight enclosure for the ultraviolet light and the power means.

17. The system of claim 16 further including a liquid-level sensor that prevents the light source from turning on until the light source is immersed in water.

18. The system of claim 17 further including a timing circuit that turns the light source off a predetermined time after the sensor turns the light source on.

19. The system of claimed 17 wherein:

- a. the battery is rechargeable; and
- b. the system further includes a battery charger.

20. The system of claim 16 wherein the power means includes a battery and an associated ballast circuit.

21. The system of claim 16 wherein the case includes

- a. a first section and a second section that separate to provide access to the power means, and
- b. sealing means for making a water-tight seal between the first and second sections.

22. The system of claim 21 wherein the sealing means is a gasket.

23. The system of claim 16 further including in the case a control means for switching the ultraviolet light source on to purify a batch of unsterilized water and thereafter switching the light source off.

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24. A hand-held system for purifying unsterilized water, the system including:

- A. a case with an outwardly extending ultraviolet light source, the light source for submerging in the unsterilized water and providing ultraviolet emissions that purify the unsterilized water,
- B. control means for turning the light source on and off, the control means being contained in the case.
- C. an ultraviolet transmissive cover that fits over the ultraviolet lamp and connects to the case in a water-tight manner to protect the lamp and the control means from the water.

25. The system of claim 24 wherein the control means includes

- a. a switch; and
- b. a timer for operating the switch to turn the light source off a predetermined time after the light source turns on.

26. A method of purifying a batch of unsterilized water that is held in a container, the method including the steps of:

- A. immersing an ultraviolet light source and an associated ultraviolet transmissive cover that form one end of a water purification system in the batch of unsterilized water that is held in the container;
- B. turning the light source on to emit ultraviolet radiation in the batch of unsterilized water in order to sterilize the water;
- C. turning the light source off; and
- D. removing the light source from the batch of water held in the container.

27. The method of claim 26 wherein the step of turning the light source off further includes turning the light source off a predetermined time after turning the light source on.

* * * * *

ORIGINAL

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS1. Title of case (name of first party on each side only) Hydro-Photon, Inc. v. Meridian Design, Inc.

2. Category in which the case belongs based upon the numbered nature of suit codes listed in the cover sheet. (See local rule 40.1(a)(1)).

- ☐ I. 160, 410, 470, 535, R.23, REGARDLESS OF NATURE OF SUIT.
- ☒ II. 195, 196, 368, 400, 440, 441-446, 540, 550, 555, 625, 710, 720, 730, *Also complete AO 120 or AO 121 for patent, trademark or copyright cases
740, 790, 791, 820*, 830*, 840*, 850, 890, 892-894, 895, 950.
- ☐ III. 110, 120, 130, 140, 151, 190, 210, 230, 240, 245, 290, 310, 315, 320, 330, 340, 345, 350, 355, 360, 362, 365, 370, 371, 380, 385, 450, 891.
- ☐ IV. 220, 422, 423, 430, 460, 480, 490, 510, 530, 610, 620, 630, 640, 650, 660, 690, 810, 861-865, 870, 871, 875, 900.
- ☐ V. 150, 152, 153.

3. Title and number, if any, of related cases. (See local rule 40.1(g)). If more than one prior related case has been filed in this district please indicate the title and number of the first filed case in this court.

4. Has a prior action between the same parties and based on the same claim ever been filed in this court?

YES ☐ NO ☒

5. Does the complaint in this case question the constitutionality of an act of congress affecting the public interest? (See 28 USC §2403)

YES ☐ NO ☒

If so, is the U.S.A. or an officer, agent or employee of the U.S. a party?

YES ☐ NO ☒

6. Is this case required to be heard and determined by a district court of three judges pursuant to title 28 USC §2284?

YES ☐ NO ☒

7. Do all of the parties in this action, excluding governmental agencies of the united states and the Commonwealth of Massachusetts ("governmental agencies"), residing in Massachusetts reside in the same division? - (See Local Rule 40.1(d)).

YES ☐ NO ☒

A. If yes, in which division do all of the non-governmental parties reside?

Eastern Division ☐ Central Division ☐ Western Division ☐

B. If no, in which division do the majority of the plaintiffs or the only parties, excluding governmental agencies, residing in Massachusetts reside?

Eastern Division ☒ Central Division ☐ Western Division ☐

8. If filing a Notice of Removal - are there any motions pending in the state court requiring the attention of this Court? (If yes, submit a separate sheet identifying the motions)

YES ☐ NO ☒

(PLEASE TYPE OR PRINT)

ATTORNEY'S NAME Thomas C. O'KonskiADDRESS Cesari and McKenna, LLP, 88 Black Falcon Avenue, Boston, MA 02210TELEPHONE NO. (617) 951-2500

The JS-44 civil cover sheet and the information contained herein neither replace nor supplement the filing of service of pleadings or other papers as required by law, except as provided by local rules of court. This form, approved by the Judicial Conference of the United States in September 1974, is required for the use of the Clerk of Court for the purpose of initiating the civil docket sheet. (SEE INSTRUCTIONS ON THE REVERSE OF THE FORM)

I. (a) PLAINTIFFS**Hydro-Photon, Inc.****DEFENDANTS****Meridian Design, Inc.**(b) County of Residence of First Listed Plaintiff Hancock
(EXCEPT IN U.S. PLAINTIFF CASES)County of Residence of First Listed San Diego
(IN U.S. PLAINTIFF CASES ONLY)

NOTE: IN LAND CONDEMNATION CASES, USE THE LOCATION OF THE LAND INVOLVED.

(c) Attorney's (Firm Name, Address, and Telephone Number)

Cesari and McKenna, LLP
88 Black Falcon Avenue
Boston, MA 02210
(617) 951-2500

Attorneys (If Known)

II. BASIS OF JURISDICTION (Place an "X" in One Box Only)

- ☐ 1 U.S. Government Plaintiff
- ☒ 3 Federal Question (U.S. Government Not a Party)
- ☐ 2 U.S. Government Defendant
- ☐ 4 Diversity (Indicate Citizenship of Parties in Item III)

III. CITIZENSHIP OF PRINCIPAL PARTIES (Place an "X" in One Box for Plaintiff and One Box for Defendant)

- Citizen of This State ☐ 1 ☐ 1 DEF Incorporated or Principal Place of Business in This State ☐ 4 ☐ 4 DEF
- Citizen of Another State ☐ 2 ☐ 2 DEF Incorporated and Principal Place of Business in Another State ☒ 5 ☒ 5 DEF
- Citizen or Subject of a Foreign Country ☐ 3 ☐ 3 DEF Foreign Nation ☐ 6 ☐ 6 DEF

IV. NATURE OF SUIT (Place an "X" in One Box Only)

CONTRACT	TORTS	FORFEITURE/PENALTY	BANKRUPTCY	OTHER STATUTES
<input type="checkbox"/> 110 Insurance <input type="checkbox"/> 120 Marine <input type="checkbox"/> 130 Miller Act <input type="checkbox"/> 140 Negotiable Instrument <input type="checkbox"/> 150 Recovery of Overpayment & Enforcement of <input type="checkbox"/> 151 Medicare Act <input type="checkbox"/> 152 Recovery of Defaulted Student Loans (Excl. Veterans) <input type="checkbox"/> 153 Recovery of Overpayment of Veteran's Benefits <input type="checkbox"/> 160 Stockholders' Suits <input type="checkbox"/> 190 Other Contract <input type="checkbox"/> 195 Contract Product Liability	PERSONAL INJURY <input type="checkbox"/> 310 Airplane <input type="checkbox"/> 315 Airplane Product Liability <input type="checkbox"/> 320 Assault, Libel & Slander <input type="checkbox"/> 330 Federal Employers' Liability <input type="checkbox"/> 340 Marine <input type="checkbox"/> 345 Marine Product Liability <input type="checkbox"/> 350 Motor Vehicle <input type="checkbox"/> 355 Motor Vehicle Product Liability <input type="checkbox"/> 360 Other Personal Injury	<input type="checkbox"/> 362 Personal Injury—Med. Malpractice <input type="checkbox"/> 365 Personal Injury—Product Liability <input type="checkbox"/> 368 Asbestos Personal Injury Product Liability PERSONAL PROPERTY <input type="checkbox"/> 370 Other Fraud <input type="checkbox"/> 371 Truth in Lending <input type="checkbox"/> 380 Other Personal Property Damage <input type="checkbox"/> 385 Property Damage Product Liability	<input type="checkbox"/> 422 Appeal 28 USC 158 <input type="checkbox"/> 423 Withdrawal 28 USC 157 PROPERTY RIGHTS <input checked="" type="checkbox"/> 820 Copyrights <input type="checkbox"/> 830 Patent <input type="checkbox"/> 840 Trademark LABOR <input type="checkbox"/> 710 Fair Labor Standards Act <input type="checkbox"/> 720 Labor/Mgmt. Relations <input type="checkbox"/> 730 Labor/Mgmt. Reporting & Disclosure Act <input type="checkbox"/> 740 Railway Labor Act <input type="checkbox"/> 790 Other Labor Litigation <input type="checkbox"/> 791 Empl. Ret. Inc. Security Act	<input type="checkbox"/> 400 State Reapportionment <input type="checkbox"/> 410 Antitrust <input type="checkbox"/> 430 Banks and Banking <input type="checkbox"/> 450 Commerce/ICC Rates/etc. <input type="checkbox"/> 460 Deportation <input type="checkbox"/> 470 Racketeer Influenced and Corrupt Organizations <input type="checkbox"/> 810 Selective Service <input type="checkbox"/> 850 Securities/Commodities/Exchange <input type="checkbox"/> 875 Customer Challenge 12 USC 3410 <input type="checkbox"/> 891 Agricultural Acts <input type="checkbox"/> 892 Economic Stabilization Act <input type="checkbox"/> 893 Environmental Matters <input type="checkbox"/> 894 Energy Allocation Act <input type="checkbox"/> 895 Freedom of Information Act <input type="checkbox"/> 900 Appeal of Fed. Determination Equal Access to Justice <input type="checkbox"/> 950 Constitutionality of State Statutes <input type="checkbox"/> 890 Other Statutory Actions
REAL PROPERTY	CIVIL RIGHTS	PRISONER PETITIONS	FEDERAL TAXSUITS	
<input type="checkbox"/> 210 Land Condemnation <input type="checkbox"/> 220 Foreclosure <input type="checkbox"/> 230 Rent Lease & Ejectment <input type="checkbox"/> 240 Torts to Land <input type="checkbox"/> 245 Tort Product Liability <input type="checkbox"/> 290 All Other Real Property	<input type="checkbox"/> 441 Voting <input type="checkbox"/> 442 Employment <input type="checkbox"/> 443 Housing/Accommodations <input type="checkbox"/> 444 Welfare <input type="checkbox"/> 440 Other Civil Rights	<input type="checkbox"/> 510 Motions to Vacate Sentence Habeas Corpus: <input type="checkbox"/> 530 General <input type="checkbox"/> 535 Death Penalty <input type="checkbox"/> 540 Mandamus & Other <input type="checkbox"/> 550 Civil Rights <input type="checkbox"/> 555 Prison Condition	<input type="checkbox"/> 861 HIA (1395ff) <input type="checkbox"/> 862 Black Lung (923) <input type="checkbox"/> 863 DIW C/DIW W (405 (g)) <input type="checkbox"/> 864 SSD Title XVI <input type="checkbox"/> 865 RSI (405(g)) <input type="checkbox"/> 870 Taxes (U.S. Plaintiff or Defendant) <input type="checkbox"/> 871 IRS—Third Party 26 USC 7609	

V. ORIGIN

(PLACE AN "X" IN ONE BOX ONLY)

- ☒ 1 Original Proceeding
- ☐ 2 Removed from State Court
- ☐ 3 Remanded from Appellate Court
- ☐ 4 Reinstated or Reopened
- ☐ 5 Transferred from another district (specify)
- ☐ 6 Multidistrict Litigation
- ☐ 7 Appeal to District Judge from Magistrate Judgment

VI. CAUSE OF ACTION

(Cite the U.S. Civil Statute under which you are filing and write brief statement of cause. Do not cite jurisdictional statutes unless diversity.)

35 U.S.C. Section 271 et al., Patent Infringement**VII. REQUESTED IN COMPLAINT:**☐ CHECK IF THIS IS A CLASS ACTION UNDER F.R.C.P. 23**DEMAND \$**CHECK YES only if demanded in complaint: **JURY DEMAND:** ☒ Yes ☐ No**VIII. RELATED CASE(S) IF ANY**

(See instructions):

JUDGE**DOCKET NUMBER****DATE****SIGNATURE OF ATTORNEY OF RECORD****FOR OFFICE USE ONLY****RECEIPT #****AMOUNT****APPLYING IFP****JUDGE****MAG. JUDGE**